first protrusions for regulating azimuths of orientations of said liquid crystal, said first protrusions being formed on said electrodes and including dielectric materials; and

second protrusions for defining a gap between said color filter substrate and said counter substrate.

REMARKS

The objections to the drawings and specification will be addressed first, with the § 112 rejection of the claims.

Applicants believe that the claimed constitutions are sufficiently supported, though the elements of the constitutions are shown in several figures, and the specification has descriptions of the application of elements shown in some figures to the constitutions shown in other figures.

Figs. 181A-181G and Fig. 182 show a CF substrate on which a BM 34 and protrusions 20A are formed. The BM 34 and the protrusions 20A are formed of the same materials by the same process and they are formed on an electrode 12. Fig. 182 shows the CF substrate which has first protrusions for regulating azimuths of orientation of liquid crystal, and second protrusions which are formed on an electrode. However, Fig. 182 does not show a constitution in which the second protrusions define a gap between the color filter substrate and a counter substrate (TFT substrate).

Figs. 184A and 184B show a CF substrate having a BM protrusion 381 which is formed on an electrode 12, and the BM protrusion 381 contacts a counter substrate (TFT substrate) to define a gap between the TFT and CF substrate. Namely, Figs. 184A and 184B show the second protrusions defining a gap between the two substrates.

Therefore, the BM protrusion shown in Fig. 182 is thicker in the same way as that shown in Figs. 184A and 814B. Then, a CF substrate which has first protrusions 20A for regulating orientation azimuths and second protrusions 34 (Fig. 182); 380 (Fig. 184B) for defining a gap between the CF substrate and a TFT substrate is obtained.

Further, as shown in Figs. 183A and 184B, the BM protrusions 380 are formed on protruded portions 381 which are formed by piling color filter materials.

Several descriptions in the specification and drawings show that protrusions for regulating orientation azimuths can be used as a spacer. For example, Figs. 124A, 124B show a constitution in which protrusions for regulating orientation azimuths define a gap between two substrates. Further, as described on page 151, lines 5-9, the resist for forming protrusions for domain regulating purposes can be used as a spacer.

Further, as described on page 132, line 37 to page 133, line 22, the CF substrate 16 of the 40th embodiment shown in Fig. 159 has protrusions 20A for regulating orientation azimuths, although they are not shown in Fig. 159. As described on page 136, lines 3-6, the 43rd embodiment uses protrusions for controlling alignment or as black matrices of the 40th embodiment. Figs. 165A and 167 show the structures of a panel of the 43rd embodiment and

modifications thereof. The protrusions on a TFT substrate define the thickness of cells (a gap between two substrates). As described on page 136, lines 22-23, the protrusions may be formed on the CF substrate. Applicants believe that these descriptions and the figures support the claimed constitutions.

Further, Figs. 44 and 46 show protrusions 20A formed to extend beyond each pixel. The height of the protrusions formed on a BM 34 is higher than that formed on other portions. This means that the height of the first protrusion is changed according to the height of the lower layers.

For these reasons, applicants believe that the claimed constitutions are supported, and request withdrawal of the outstanding objections and § 112 rejection.

Claims 149-156, 159-172 and 175-179 stand rejected under § 102(e) on the basis of Kurauchi et al. Applicants traverse this rejection for the reasons given in previous papers, and in light of the following remarks.

In the present action, the examiner only states that the first protrusions of dielectric materials being formed on the electrodes on the CF substrate is not supported in the specification and drawings, and that therefore, the limitation regarding the first protrusions does not have patentable weight. As described above, applicants believe that the claimed constitutions are supported in the specification and drawings. Reconsideration and withdrawal of this rejection is respectfully requested.

For the foregoing reasons, applicants believe that this case is in condition for allowance, which is respectfully requested. The examiner should call applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 

Patrick G. Burns
Registration No. 29,367

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300 South Wacker Drive
Suite 2500
Chicago, Illinois 60606
Telephone: 312.360.0080
Facsimile: 312.360.9315
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 149 was amended as follows:

149. (Twice Amended) A color filter (CF) substrate having a color filter and electrodes and sandwiching a liquid crystal with a ~~counter~~TFT substrate, comprising:

first protrusions for regulating azimuths of orientations of said liquid crystal, said first protrusions being formed on said electrodes and including dielectric materials; and

second protrusions for defining a gap between said color filter substrate and said counter substrate.